Disease Eradication and *Pembangunan*: The Soekarno Era

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Abstract

From 1949-1967, newly decolonised Indonesia under President Soekarno was in the process of defining its identity within the larger international community in the context of Cold War between the USSR and USA. The US, under President Eisenhower had launched the malaria eradication programme to aid newly decolonised countries of Africa and Asia, including Indonesia as a part of the 'Point Four Programme' to contain communism. While the US advocated support for the malaria eradication programme in newly decolonised nations of Africa and Asia as a valuable weapon in the fight against communism, President Soekarno perceived malaria eradication as a means to reconstruct *Manusia Indonesia Baru* (The New Indonesian) in the light of the *pembangunan*(developmentalism) ideology. While the US supplied Indonesia's initial DDT requirements in its malaria eradication campaign, the Minister of Health, Johannes Leimena perceived manufacture of DDT within Indonesia as a synecdoche to self sufficiency in economic matters(*berdiri kaki sendiri*).

While there is a rich historiography documenting post World War II disease eradication programmes in India, Latin America, and Africa, the Indonesian post World War II disease eradication campaigns seem to have escaped the attention of historians of medicine. Situating the history of disease eradication campaigns in Indonesia within the context of the Soekarno era would illustrate the impact of *pembangunan* ideology on health and the way disease eradication was seen as a component of nation building. This paper argues that it would be over simplistic to assume that disease eradication as a prescription for social and economic change merely reflected the ability of Western science to transform underdeveloped countries. Nor were technological interventions alone such as BCG vaccination against tuberculosis or arsenical shots against yaws magic bullets against disease. Rather, disease eradication in post World War II Indonesia depended on the charisma of the public health personnel such as the *Djuru Patek* (involved in eradication of yaws) to affect behavioural change of the population to accept new technologies of the twentieth century such as the introduction of the arsenical shots. The Indonesian disease eradication campaigns of the 1950s in many ways reflect the interplay between the two approaches to public health: the social medicine approach to public health, which emphasises development of basic health services; the magic bullet approach, typified by the use of DDT in malaria control in 1959. Examining the history of disease eradication in Indonesia through an interplay of these two approaches to public health would help gauge the average Indonesian's perceptions to technological interventions in disease control.

Keywords: *pembangunan*, malaria eradication, New Indonesian; tuberculosis control, 1950s; yaws campaign, Kodijat, Soetopo

The International Context

The idea that disease control was a means of safeguarding national interest was first articulated in the International Sanitary Conferences beginning 1851(WHO, 1958). The main aim of these conferences was to reach common agreement among nations of Europe on minimum maritime quarantine requirement and the defence of European nations against exotic diseases originating from Asia, particularly British India. From 1909 onwards the *Office International d' Hygiene Publique* was active in the control of communicable diseases. However the vision of realising the control of communicable diseases proved realizable only during World War II(1939-1945), with the discovery of penicillin (a cure against syphilis and yaws) and DDT against malaria. At this point in time, scientists were researching the physiological and psychological factors that affected military performance during war (WHO 1958, p 37). By 1945, scientists worldwide agreed that medicine would provide the means to build a peaceful world. Around 1945, the United Nations(henceforth UN) included health of all peoples of the world as a prelude to establish international security. The Economic and Social Council of the UN had proposed the establishment of the WHO in 1948. The leitmotif of the WHO was to serve as the directing and coordinating authority on issues related to international health (p46).

While newly decolonised India, sub-Saharan African nations, and Latin America figure prominently in the historiography of international health of the 1950s, newly decolonised Indonesia has largely escaped the attention of scholars of international health working on the 1950s. Randall Packard argues that malaria eradication programs of the post World War II period worldwide were viewed within international policy circles as a problem of economic and political development as much as a problem of public health (Packard 1997, p283). Eradication of malaria was based on the assumption that the key to successful eradication lay in narrow technical interventions such as the use of DDT. Marcos Ceuto argues that malaria eradication merged biological challenges and political opportunities through an incorporation of military metaphors such as 'crusade' in order to enlist conformity of the common people (Ceuto 2007, p16). Political rhetoric guided the propaganda of malaria eradication in Latin America. Ceuto illustrates that in the post World War II period, rivalry between USA and the Soviet Union had pervaded all aspects of society and culture. International development including public health interventions in developing countries served as an arena of extending either the American or the Soviet sphere of influence in developing countries where the competition for raw materials was intense (19). Sunil Amrith points out that in the post World War II period, the language of health shifted from rights and entitlements to an economic goal of increasing production, particularly in India (Amrith 2006, 86). The WHO in the 1950s highlights the polarity between the social medicine approach to international health– which emphasises a cyclical relationship between poverty and ill health– and a magic bullet approach which focuses on narrowly attacking specific causes of disease such as eliminating the source of malaria parasite. Indonesia serves as a testing ground to examine the interplay of the social bullet and magic bullet approaches to public health, particularly with respect to the implementation of the malaria eradication program, tuberculosis control project, yaws eradication program, and the elimination of venereal diseases. For example, while DDT was held within a section of the policy circles as a magic bullet against malaria and manufacture of DDT within Indonesia as a symbol of national self sufficiency, malaria eradication was also viewed as a nucleus for the strengthening of basic health services and a

means to reconstruct the *New Indonesian* in accordance with the *pembangunan* ideology. My paper will reveal in the forthcoming sections that the social medicine and magic bullet approaches to public health within an Indonesian context were at times at odds with each other. At other times, typified by the Indonesian state approach to tuberculosis, the magic bullet approach synchronised well within the framework of social medicine. The interplay between social medicine and the magic bullet approaches to public health would help to explain the limits of technological interventions such as popular reservation to vaccinations.

The 1950s have been largely underrepresented in Indonesian historiography as well. This decade coincided with the Soekarno era of Indonesian history. The 'fifties' been portrayed as a 'lost decade' during the Suharto era as they evoke sensitive questions such as how the identity of the new nation state would be articulated in the post World War II international order(Nordholt 2004). In the Soeharto era narrative, Indonesian history is divided into the pre colonial golden era, the dark period of colonial rule, the heroic resistance to colonial rule culminating in the Indonesian Revolution of 1945, the period of liberal democracy and the period of guided democracy culminating in the communist assault resulting in the murder of six military generals that led Suharto to power (p5). Historians of the New Order Era (Suharto Era, 1967-1998) have therefore overlooked significant institutional dimensions of development of the 1950s such as social change (p6).

Malaria Control and *Pembangunan*

In the Soekarno era, malaria was known to have a morbidity rate of 40 per cent (Leimena 1956, 34). Nearly six to seven per cent of deaths in Indonesia per annum in the 1950s, or 120,000 deaths per year could be attributed to malaria, in the estimate of Johannes Leimena, the then minister of Health. Nearly 30 million people were affected by malaria every year (34). Leimena argued that the 30 million malaria patients represented a great economic loss caused by the disease as a result of absenteeism of people from work. Indonesia could either avoid an economic loss of millions of rupiah or a loss of manpower which had considerable potential value annually(34). The Ministry of Health envisioned the establishment of model Regencies throughout the archipelago which would demonstrate the efficacy of malaria control through the application of DDT. USAID provided much needed impetus to the malaria eradication campaign in Indonesia from 1955-1959 through supplies of DDT whereas Indonesia would However Leimena was interested in building Indonesia's capacity in the production of DDT, as USAID was uncertain at this point in time, in the late 1950s.

Military metaphors were inserted into the malaria eradication campaign. The Indonesian malaria eradication campaign assumed a quasi military style operation by the early 1960s. Malaria was termed as 'enemy number one' of the Indonesian state as it interfered with the mental and physical development of the Indonesian. In the early 1960s, malaria eradication had not yet commenced on the *outer islands* of the Indonesian archipelago such as Kalimantan and Sumatra. Therefore Indonesia could not realise its objective of tapping the natural resources of the *outer* islands through *transmigrasi* (transmigration of people from populous islands such as Java and Madura to resource rich islands such as Sumatra and Kalimantan). In the absence of malaria eradication *pembangunan daerah*(regional development) remained unfulfilled. Col. Azil Widjajakusuma was the Executive Director of the Malaria Eradication Campaign(KOPEM)in 1963. The Indonesian military viewed malaria eradication as a means of nation building and constituting the *New Indonesian,* who would be healthy and embody the ideals of *Manipol Usdek*(Widjajakusuma 1963, 43).

The WHO had launched a demonstration project in malaria control in the regencies of Tjilatjap and Semarang in Central Java from1951-56. The aim of this project was to study the effectiveness of DDT on the vector under local conditions, the best time for spraying houses, demonstyrate cost effective malaria control measures, and train auxiliary health personnel in malaria control, according to the Assignment Report prepared for the World Health Organisation Regional Office for Southeast Asia (SEA/MAL/15). Investigations were carried out using a combination of blood and spleen surveys and morbidity surveys and entomological methods such as daytime catches of adult mosquitoes and testing susceptibility of mosquitoes to DDT. This demonstration project was successful in compiling an impressive volume of malariometric data related to the general distribution of malaria in the province. However the project was unable to meet its target of eradicating malaria as the *A Sundaicus* vector developed resistance to DDT(SEA/MAL/15).

While the spraying of DDT commenced simultaneously in all the regencies of Central Java, the regencies recorded variable results with respect to malaria control(SEA/MAL/15). The Malaria Institute at Djakarta under the Ministry of Health had charted the eradication plan for the province of Central Java using a uniform yardstick with respect to climatic conditions, although the climatic conditions of Central Java varied according to topography. Likewise the distribution pattern of malaria also varied(malaria was endemic to coastal areas and inland areas which cultivated paddy whereas it was absent in the highlands of Central Java). The Malaria Institute allocated the same amount of insecticide, and vehicles to each regency in Central Java. The malaria eradication in Central Java had thus become a quasi military campaign with centralised directives from Djakarta. The provincial government of Central Java had no say in how the eradication campaign was to be implemented.

Tuberculosis Control: Wishful Thinking

Tuberculosis control in the 1950s was directed by the Division of Tuberculosis Control under the Ministry of Health (Samallo 1956,3). In the 1950s, Indonesia suffered an acute shortage of doctors. Therefore diagnosing the right variety of tuberculosis became rather challenging. The morbidity caused by tuberculosis in urban areas of Indonesia was around seven per cent.

The city of Bandung was chosen as the site of the WHO tuberculosis demonstration project in Indonesia in 1953 as it had a well developed health infrastructure. The Indonesian government planned to expand the tuberculosis project at Bandung on an all Indonesia basis. Administrative rather than technical bottlenecks caused then failure of the tuberculosis control program on archipelago wide basis. The tuberculosis program was administered by the Ministry of Health whereas financial responsibility for the project lay with the province of West Java. The local government of Bandung was not involved in tuberculosis control. Therefore the tuberculosis control project could not expand throughout the Indonesian archipelago(SEA/TB/5).

The Bandung project had observed that socio economic conditions of the people influenced the prevalence of tuberculosis(SEA/TB/5). Unhygienic living conditions and spitting proved congenial in the transmission of tuberculosis. The tuberculosis demonstration project in Bandung was however unable to achieve coordination at the provincial, district, sub district and village level between tuberculosis control and preventive medicine.

Tuberculosis control in Indonesia during the Soekarno era reflected a synthesis of the social medicine and magic bullet approaches to public health. Indonesian began its first mass vaccination program in Bandung against tuberculosis in 1953. The campaign immunised as

many newborns as possible with the BCG vaccine(LCG Samallo 1955,8). *The Conference for the Control of Tuberculosis in Indonesia* held at Bandung in 1955, by the Ministry of Health envisioned the establishment of tuberculosis centres in the headquarters of each district and the major towns. In 1955, for the first time a tuberculosis centre was inaugurated in Palembang, South Sumatra for promoting the cause of community health. The Tuberculosis Section within the Ministry of Health enlisted the support of the Maternal and Child Welfare Division and Department of Community Nutrition within the Ministry of Health for case finding.

The post World War II period recorded a lower tuberculin index (38) among Indonesian infants compared to the 1930s. Chronic hunger and food shortages in Central Java registered a sharp decline with the modernisation of agriculture which could partly account for the fall in tuberculin index (39). However tuberculosis was the second most significant cause of infant mortality in Indonesia after dysentery in the 1950s (42).

The Yaws Campaign

The campaign against yaws in Indonesia coincided with the interest of the United Nations Children's Fund(UNICEF) to promote maternal and child health in the late 1940s. The UNICEF had concentrated on the control of yaws as it was treatable following an injection of penicillin. The Indonesian anti yaws campaign formed a part of the trepanematosis control program launched by the Indonesian government in collaboration with the WHO and the UNICEF(Soetopo 1953, 4). In 1953, Indonesia had developed two methods to treat yaws:
the active treatment of yaws cases in polyclinics;
Raden Kodijat's method of using field teams to detect yaws.

The Trepanematosis Control project Simplified was a simplified version of Raden Kodijat's version of treating yaws. It began as a pilot project in the sub district of Dirjo in Soerabaja (Soetopo and Wasito 1953, 274). The distribution of yaws in Dirjo sub region was patchy (280). Although Dirjo sub district had a prevalence of 10 per cent , the adjacent district had a relevantly low prevalence rate of 7 per cent(280). The most common forms of transmission of yaws in Indonesia were through household contact, village contact and incidental contact. Raden Kodijat's method of treating yaws was successful in achieving mass detection of yaws patients in Java using teams of *djuru pateks* specially trained for this purpose (285). The operation of yaws control program in Indonesia in the 1950s using *djuru pateks* illustrates that although villagers were aware that yaws was transmitted from the sick to the healthy by contagion they were afraid that arsenical injections may aggravate the disease further.

Conclusions

While disease eradication campaigns in Indonesia can be seen in relation to the nation building ideology, the eradication campaigns were fissured owing to differences between the centre and the provinces over the questions of finance and coordination. These campaigns reflect the blending together of social medicine with the magic bullet approach to public health.